

PRINTERS & SCANNERS

FAQ

Q Should I buy toner and ink individually, or in a value pack that contains one of each colour?

A Value packs cost less overall than the sum of their contents, but it's expensive to buy a full set at once. For example, a pack of black, cyan, magenta and yellow 12,000-page toners for the Konica Minolta Magicolor 5550 reviewed on the right costs £435 including VAT. Although this seems like a lot, the 5550 is about 23 per cent cheaper to run if you buy toner and drums in packs.

Bear in mind, though, that you'll see these savings only if you print equal amounts of each colour. In practice, you're likely to run out of black or yellow more often, so will need to supplement packs with some individual supplies. The same generally applies to bundles of ink and paper for photo printers.

Computer Shopper calculates the running costs of compact photo printers based on ink and paper bundles. For any other printer, we always use the price of individual supplies.

Simon Handby

Printers and audio expert

simonh@computershopper.co.uk

KONICA MINOLTA Magicolor 5550

★★★★★

£750 inc VAT

EXCLUSIVE

Konica Minolta's Magicolor 5550 is a single-pass colour laser printer, aimed at office and small workgroup use. As you might expect for the price, it's robust, with a maximum monthly duty cycle of 120,000 pages. It has a network port and comes with PCL 6 and PostScript 3 print languages as standard.

The 5550 looks similar to other large Konica Minolta colour lasers we've reviewed, but it contains a redesigned print engine. It's quieter than much of the competition, mostly confining itself to fan noise and discreet whirs rather than the usual battery of clunks. There's a big screen, and a USB port that supports PictBridge, or USB-direct printing from storage devices.

The bulky 5550 is shipped with its consumables in place, and you need only remove some packing material before it's ready to print. It successfully leased an IP address on our network, but Konica Minolta's install program wasn't able to detect it. We used the menu to find the address and added it manually to the installer. Unlike Dell's Colour Laser Printer 5110cn (reviewed in *What's New*, October 2006), there's no option to limit access to colour printing.

This printer has a standard 500-sheet cassette and a 100-sheet multipurpose feed, which you need to clip on to the side. It doesn't seem particularly sturdy and has no orientation markings for envelopes. After much trial and error, we found the correct orientation and driver settings, and discovered that the 5550 can print envelopes flawlessly.

Konica Minolta says this printer can print black-only documents at up to 30 pages per minute (ppm), but this was not the case in our tests. Its quickest result on our 50-



page draft test came using the PostScript driver, where it managed 24.8ppm; respectable, but some way short of the Dell 5110cn's 31.6ppm. In colour, however, the 5550 was one of the fastest colour lasers we've seen, recording an impressive 20.9ppm on our colour Normal speed test using the PCL driver. Even when PostScript printing, normally slower than PCL on complex jobs, it managed 13.7ppm on the same test.

The 5550's print quality was excellent across our tests. Text appeared solid black, with crisp outlines and no visible jaggedness. The 5550 is the only colour laser

we've tested for some time that matches the photo print quality of Epson's AcuLaser C1100 (see 'Also consider...', below). Colour graphics printed with accurate colours and a uniform, satin finish that looked classy. Unfortunately, the 5550 struggled to print subtly different dark shades on our presentation slides, a glitch we've seen before in affordable Konica Minoltas.

The 5550's print quality is better than Dell's 5110cn, particularly in colour, but it's slightly more expensive to run and costs around £80 more. It's worth it if you want the best colour print quality, but the 5110cn is marginally better value.

Simon Handby

SUMMARY

- ✓ Fast colour printing
- ✓ Excellent print quality
- ✗ Quite expensive

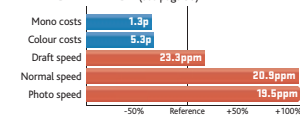
COLOUR LASER PRINTER 600x600dpi resolution, 30ppm mono/25.6ppm colour maximum speed, parallel, USB Hi-Speed, PictBridge USB and 10/100 Ethernet interfaces

PART CODE A011021

SUPPLIER www.printerbase.co.uk

DETAILS www.konicaminoltaprinters.co.uk

PERFORMANCE (see page 56)



Also consider...

SAMSUNG ML-2510

★★★★★

£74 inc VAT



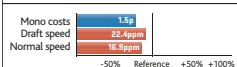
This grey laser printer may look a little drab, but

it's easy to set up and quick to install. It has a 250-sheet covered input tray and a single-sheet multipurpose feed slot, but it crumples envelopes.

The ML-2510 peaked at 22.7ppm when printing text, which is impressive for such an affordable printer. It's also cheap to run, with a cost per page of around 1.5p, yet produces high-quality text and mono graphics. It's a great compact budget mono laser.



MONO LASER PRINTER 1,200x600dpi resolution, 24ppm maximum speed, parallel and USB Hi-Speed interfaces
PART CODE ML-2510
SUPPLIER www.misco.co.uk
DETAILS www.samsung.co.uk
✓ Fast; affordable to buy and run; good print quality
FULL REVIEW Oct 2006



DELL Multifunction Laser Printer 1815dn

★★★★★

£288 inc VAT

PRICE CUT!

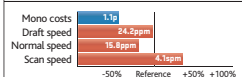


Dell's Multifunction Laser Printer 1815dn

can scan in colour and make black-and-white prints and copies. It has a standard network interface and can print on both sides of a sheet of paper automatically. It produces sharp scans, high-quality text documents and decent copies, though they can be a little too dark. It's fast, easy to use and cheap to run, so it's ideal for a busy office.



MONO LASER MULTIFUNCTION PERIPHERAL 600x600dpi print resolution, 600x1,200dpi scan resolution, USB and 10/100 Ethernet interfaces
SUPPLIER Dell 0879 075818
DETAILS www.dell.co.uk
✓ Fast; cheap to run
✗ Dark PostScript prints
FULL REVIEW Nov 2006



HP Scanjet G4010

★★★

£127 inc VAT

HP's Scanjet G4010 is a flatbed scanner with a backlight built into the lid. It can make scans of normal reflective documents such as photo prints or a page of text, or use the backlight to capture strips of negatives or positive slides.

While most scanners work by measuring the amount of red, blue and green light that is reflected back from a document or that passes through film, the G4010 records six channels of colour. This gives it a 96-bit colour depth rather than the usual 48-bit. HP says that capturing red, orange, yellow, green, cyan and blue information allows the scanner to capture a richer, truer image. Printing photos with six colours generally produces better results than using three or four, so we were interested to see if HP's technology produced better scans.

This scanner feels sturdy and well made. There's a useful handle moulded into the lid, which also has four large short-cut buttons. You can load film strips directly into a mount built into the document mat, but the alignment is

marked by a head and shoulders icon that doesn't make it clear which way up they should go. The box contains a USB cable and a generous software bundle that includes image-editing and optical character recognition (OCR) applications. There's no scan head lock, so you need only install the software before you can begin scanning. You can choose between an energy-saving mode, where the scan lamp is extinguished shortly after a scan, or a fast warm-up mode, where it's kept lit for longer.

Unfortunately, the G4010 uses HP's TWAIN interface software, which is clunky and frustrating to use. It doesn't allow you to make multiple scans in one session and won't automatically remember your preview image or settings between sessions. This is frustrating when you're scanning film, as you have to wait for nearly a minute for the scanner to warm up and complete a reflective preview before you can switch it into transparency mode. We found



ourselves wishing we'd selected the fast warm-up mode during the install.

We weren't impressed with the scan quality. Documents on white paper weren't crisply focused, and had a blue tint in regions where the document mat hadn't held the paper flush with the scanner's glass. The G4010 didn't produce sharp film scans and wasn't able to distinguish subtly different dark shades in slide film.

The G4010 has a high-quality feel and comes with some useful software, but HP's scan interface is a pain to use. The G4010 is little cheaper than Epson's Perfection 4490 Photo (below), which is much better for scanning film.

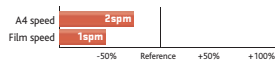
Simon Handby

SUMMARY

- ✓ Looks, feels and sounds well made
- ✗ Horrible scan interface
- ✗ Underwhelming scans

FLATBED SCANNER 4,800x9,600dpi optical resolution, 96-bit colour depth, transparency adaptor, USB Hi-Speed interface
PART CODE L1956A
SUPPLIER www.dabs.com
DETAILS www.hp.co.uk

PERFORMANCE (see page 56)



▲ Scanning film at 2,400dpi, images from the Scanjet G4010 (left) are far less sharp and detailed than those from Epson's Perfection 4490 Photo (right)

EPSON Perfection 4490 Photo

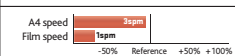
★★★★★

£129 inc VAT



Epson's Perfection 4490 Photo has a high optical resolution and comes with a decent software bundle. It can capture 35mm or 120mm medium format films, and has Kodak's Digital ICE dust reduction, though this didn't work well. Its focus is sharper than most flatbed scanners, and it produced great film scans. Its price has dropped since our original review, making it excellent value.

FLATBED SCANNER 4,800x9,600dpi optical resolution, 48-bit colour depth, transparency adaptor, USB Hi-Speed interface
PART CODE B11B176022
SUPPLIER www.savastore.com
DETAILS www.epson.co.uk
✓ Excellent film scanner
✗ Ineffective dust reduction
FULL REVIEW Nov 2006



EPSON AcuLaser C1100

★★★★★

£282 inc VAT

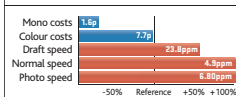


Epson's C1100 is fairly large for a four-pass colour laser, and it's more tricky than many to set up. In our tests it came close to Epson's claimed speeds, but the most welcome discovery was its superb all-round print quality.

This is an excellent, inexpensive printer with reasonable running costs.



COLOUR LASER PRINTER Colour laser, 600dpi, 25ppm mono/5ppm colour maximum speed, USB Hi-Speed interface
PART CODE C11C567001
SUPPLIER www.dabs.com
DETAILS www.epson.co.uk
✓ Excellent print quality
✗ Fiddly to set up
FULL REVIEW Apr 2005



HP Photosmart D7160

★★★★★

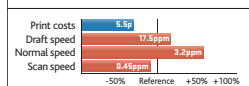
£77 inc VAT



HP's Photosmart D7160 costs less now than it did when it won our Best Buy award. It doesn't produce the best photo quality we've seen, but it's fast, affordable and easy to use. It's equally happy reeling off A4 pages of high-quality text or printing photos directly from a memory card.

We don't think it's worth paying extra for the touch-screen-equipped D7360 when the D7160 is this good.

A4 PHOTO INKJET Six-colour inkjet, 4,800x1,200dpi resolution, USB Hi-Speed and USB PictBridge interfaces
PART CODE Q7047B
SUPPLIER www.amazon.co.uk
DETAILS www.hp.co.uk
✓ Cheap to buy and run; easy to use
FULL REVIEW Jan 2007



CANON Selphy ES1

★★★
£135 inc VAT



Some compact photo printers are inkjets but others, such as Canon's Selphy ES1, use dye sublimation. A dye-sub printer prints by moving paper across a stationary print head, so you need to leave plenty of space clear behind it. The ES1 is the first dye-sub we've reviewed that's arranged vertically, so it needs far less space on the desk.

You normally buy ink and paper for a dye-sub in a bundle that prints a fixed number of photos, but the ES1 takes a single consumable containing both paper and an ink ribbon. Two sizes are available: the 50-print pack costs £11, and a 100-print pack is available for £19. Using the 100-print pack, print costs are competitive at 19p per print.

It's easy to open up the large side door and slot either pack into the printer and, unlike other Canon dye-sub, you can't get the paper the wrong way round. Strangely, paper within the consumable is aligned across the printer, and needs to be turned through 90° before the ES1 can print on it. Each page performs an elaborate pirouette at the front of the printer before disappearing inside to be printed. The process adds almost 30 seconds to each print and seems to require a lot of servo motors. We didn't experience any feed problems during our tests, though.

Printing from the PC is straightforward, with a driver interface that's easy to understand. You can print directly from a camera memory card, too, but you'll need an

adaptor for the xD format. The ES1's large screen is sharp and brightly lit, but the menu system takes a while to understand. The default one-shot-at-a-time print mode is less easy to use than selecting multiple images and printing them in a batch. The screen

shows a single large shot, but we preferred selecting images from the thumbnail display.

The ES1 has a captive USB cable on a reel, which extends and retracts like a vacuum cleaner lead. It's suitable for connecting a digital camera, but the ES1 also has a standard PictBridge port for cameras without a Mini-B type USB connector.

Though the ES1 is cheap to run for a dye-sub, it isn't especially quick. Printing six shots from a PC took eight minutes and 24 seconds, while from a memory card it took seven minutes and 36 seconds. We weren't greatly impressed with either set of results. Colours were faithful to the original pictures, but the ES1 struggled to reproduce subtle progressions of shade. This was most evident in pictures of sky, which looked slightly mottled and artificial in places.

We were disappointed that the ES1's unusual paper loading mechanism didn't prevent dust getting on to the page and causing the occasional colour blemish, a typical print flaw in dye-sub printers. It's an attractive printer, but it seems complicated, produces lacklustre results and is expensive to buy.

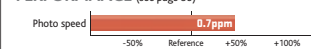
Simon Handby

SUMMARY

- ✓ Low cost per print
- ✗ Expensive to buy
- ✗ Disappointing print quality

COMPACT PHOTO PRINTER 300x600dpi maximum resolution, USB and PictBridge USB interfaces
PART CODE 0033S0315
SUPPLIER www.amazon.co.uk
DETAILS www.canon.co.uk

PERFORMANCE (see page 56)



CHOOSING A... Laser Printer

Follow the steps to find your ideal specs

RESOLUTION: 1,200x600dpi
MEMORY: 8MB
SPEED: 24ppm
INTERFACES: USB
PAGES PER MONTH: 5,000
PAPER TRAYS: 150-sheet A4
OPTIONS:

Recommended minimum in grey

1 Prices for A4 laser printers with specs such as those above start at around £70. These models are fine for users who print less than one packet (500 pages) of paper a month. Look for good print quality, flexible drivers and running costs of below 2p per page. It should ideally hold paper clean and flat in a horizontal tray and allow manual feeding of headed paper and envelopes with no creasing.

2 You'll have to spend more for a printer with the build quality and speed to cope with a heavy workload. Heavy users or small workgroups need up to 25 pages per minute (ppm), and whole departments need even more. Bulk printing demands costs of 1p per page or less.

3 Colour lasers are now available for less than £200, but at this price you'll get a four-pass model that will print colour far slower than mono. If colour speed is important, consider spending £400 or more on a faster single-pass model.

4 Support for a printer language such as Printer Control Language (PCL) 6 or PostScript 3 means you can use the printer with any computer and even some PDAs.

5 Not all lasers print graphics well, but a 1,200dpi resolution helps. Colour lasers can often print high-quality graphics but should have at least 32MB of memory.

6 A network adaptor allows you to connect a printer to an Ethernet network, so all the network users can print to it directly. Smaller groups can use a PC to host and share any printer using Windows' File and Print sharing wizard.

7 Duplex printing is an increasingly affordable option and lets you print on both sides of a sheet of paper automatically. A scanner/fax unit turns your printer into a multifunction peripheral. Large groups should get multiple paper trays to deal with headed paper and other stationery.

Also consider...

CANON PIXMA iP4300

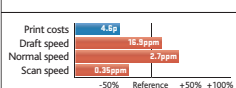
★★★★★
£55 inc VAT

BEST BUY If you need a budget printer, Canon's PIXMA



iP4300 shows that you don't need to compromise on quality. It has two paper trays, and can print on coated CDs or both sides of each sheet of paper. It's fast to produce text, colour graphics and photos. Print quality is high, with no trace of grain, though photos are a little bit oversaturated. Best of all, it has very low running costs.

INKJET PRINTER Five-colour inkjet, 9,600x2,400dpi maximum resolution, USB and PictBridge USB interfaces
PART CODE 1438B008AA
SUPPLIER www.savastore.com
DETAILS www.canon.co.uk
✓ Inexpensive; fast; flexible; stylish; high-quality results
FULL REVIEW Dec 2006



CANON PIXMA MP160

★★★★★
£40 inc VAT

BEST BUY The PIXMA MP160 costs less than many budget inkjet printers, and it can also make good-quality scans and copies. It's compact and attractive and not too tricky to set up. Unusually for such an affordable printer, it has low running costs if you use Canon's high-capacity ink cartridges. It's great value if you just want a basic multifunction peripheral.



FOUR-COLOUR INKJET MFP 4,800x1,200dpi print resolution, 600x1,200dpi scan resolution, USB Hi-Speed and PictBridge USB interfaces
PART CODE 1447B008AA
SUPPLIER www.amazon.co.uk
DETAILS www.canon.co.uk
✓ Affordable; good results
✗ No card reader
FULL REVIEW Jan 2007

